

Report on the Analysis of Faunal Remains from Seven Rural Sites in Delaware
submitted for analysis by
The Department of Transportation of the State of Delaware to
M. A. Zeder
August 10, 1982

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Notes accompanying rural site faunal remain tabulations:

Reptiles and Fish

1. The fish remains from the Route 113 Well Site represent a single species, probably of the family Sparidae (porgies) or, more likely, the family Sciaenidae (croakers and drums) (ie. Aplodinotus grunniens - the American Fresh Water Drum, a food fish found in the area).
2. Turtle - unidentified species, possible food source or accidental inclusion

Birds

1. Buteo cf. jamaicensis - red-tailed hawk, common inhabitant of open country in the area, accidental inclusion
2. Picidea - flicker and woodpecker family, may also represent a passerine (see below), accidental inclusion
3. Anser anser - domestic goose. It is also possible that these bones represent wild geese (ie. Branta canadensis), especially given the presence of other wild fauna in the Route 113 Well Site assemblage. Food source
4. Passerine - unidentified species of song bird, accidental inclusion.
5. Gallus gallus - domestic chicken, food source
6. Gallus/Meleagris - chicken or turkey. Bones of these birds are morphologically almost indistinguishable and there is an overlap in the size ranges of these species. These are larger bones that could either represent the large rooster or the small turkey. Food source
7. Anas sp. - duck, domestic or wild. Possible domestic forms are: Anas platyrhynchos (Mallard) or Carina moschata (Muscovy Duck). Possible wild form might be A. platyrhynchos or A. rubripes (Black Duck) among other local forms. Food source
8. Large Bird - goose size bones unidentifiable to any finer taxonomic level
9. Medium Bird - chicken size bones unidentifiable to any finer taxonomic level
10. Small Bird - passerine size bones unidentifiable to any finer taxonomic level
11. Unidentifiable Bird - bones of an indeterminate size bird

Mammals

1. Sus scrofa - domestic pig. The percentage of pig in these assemblages is elevated by a large number of teeth, a pattern which may represent butchery practices more than it represents actual meat contribution of these species. Food source
2. Young Sus - bones of very young (neo-natal or even foetal) pigs, questionable food source
3. Bos taurus - domestic cattle. A high percentage of teeth and head elements of this species is found at these sites (especially when compared to urban assemblages in the region). Local butchery and rearing of cattle at these rural sites is indicated. Food source
4. Young Bos - calves about 6 months or younger, probable food source
5. Ovis aries - domestic sheep. All bones for which discrimination between sheep and goat is possible belong to sheep. The possibility that some of the bones for which discrimination is impossible belong to domestic goats (Capra hircus) cannot be excluded. Food source
6. Equus caballus - domestic horse, questionable food source
7. Odocoileus virginianus - white tailed deer. The presence of this species in the Route 113 Well assemblage represents the procurement of meat in the form of hunted game. The presence of only skull and metapodial fragments of deer in the assemblage implies that these bones represent discard from the initial stages of butchery with the rest of the carcass taken elsewhere. This is the only assemblage in which wild game is represented. Whether the inclusion of this material in this assemblage is a result of 1.) meat procurement practices of the somewhat earlier time period represented here, 2.) the function and location of this particular site, or 3.) the larger sample size of the faunal remains from the Route 113 Well Site cannot be discerned at this time. Food source
8. Procyon lotor - raccoon, accidental inclusion or taken for pelt and/or as food source
9. Ondatra zibethicus - musk rat, inhabitant of marshes, stream and pond banks, probably trapped for pelts and possibly for meat
10. Felis catus - domestic cat, accidental (purposeful?) inclusion, not a food source

11. Large Mammal - cattle and horse size bones unidentifiable to any finer taxonomic level
12. Medium Mammal - pig and sheep size bones unidentifiable to any finer taxonomic level. This category contains all pig and sheep (and deer) vertebra and rib fragments, which cannot be discriminated from one another, as well as fragments from other skeletal regions too fragmented for species identification.
13. Small Mammal - cat and small size bones unidentifiable to any finer taxonomic level
14. Unidentifiable Mammal - bones of an indeterminate size mammal

12
Miscellaneous

Reptiles and Fish

Provenience	Animal	Number of Fragments
7K-F-88A: Rt. 113 Well Transitional Levels		
Level 2	Fish	1
Level 11	Fish	2
N.W. & N.E. Quad		
Level 10	Fish	1
Level 11	Turtle Fish	2 Carapace frags. 2
Level 12	Fish	80 + many small spines
Level 13	Fish	12
Level 15	Turtle	1 Carapace frag.
Flotation Sample		
N.W. Quad		
Level 10	Fish	5
Level 11	Fish	10
81/24: Hawthorn/Well Site -012: T.P. 13 Lvl. 2	Turtle	1 Carapace frag.
81/27: Ferguson House -110: T.P. & Lvl. C	Fish	1

Mammals - 2

Unident.

Rib

Vertebra

Sacrum

Lumbar V.

Thoracic V.

Cervical V.

Limb

Phalanx

Metapodial

Tarsal

Fibula

Tibia

Patella

Femur

Pelvis

Carpal

Ulna

Radius

Humerus

Scapula

Mandible

Skull

Total

Provenience

Mammal

7K-F-88A: Rt. 113 Well
N.W & N.E. Quad Well Lvl's.

Level 1

TOTAL
Bos taurus
Sus scrofa
Medium Mammal
Unident. Mammal

21

2

1

1

1

11
6

Level 2

TOTAL
Bos taurus
Sus scrofa
Ovis aries
Large Mammal
Medium Mammal
Unident. Mammal

12

3

1

1

1

1

1

2

Level 3

TOTAL
Bos taurus
Equus caballus
Sus scrofa
Large Mammal
Medium Mammal

12

4

1

1

1

1

1

1

Level 4

TOTAL
Bos taurus
Odocoileus virginianus
Ovis aries
Procyon lotor
Medium Mammal
Small Mammal
Unident. Mammal

8

1

1

1

1

1

1

1

Level 5

TOTAL
Bos taurus
Ovis aries
Large Mammal
Medium Mammal
Small Mammal

5

1

1

1

1

1

Unident.

Rib

Vertebra

Sacrum

Lumbar V.

Thoracic V.

Cervical V.

Limb

Phalanx

Metapodial

Tarsal

Fibula

Tibia

Patella

Femur

Pelvis

Carpal

Ulna

Radius

Humerus

Scapula

Mandible

Skull

Total

Provenience

Mammal

7K-F-88A: Rt. 113 Well
N.W. & N.E. Quad Well Lvl's.
Level 6

TOTAL
Bos taurus
Sus scrofa

2
1
1

1

1

Level 7

TOTAL
Unident. Bone

1
1

1

Level 8

TOTAL
Large Mammal
Unident. Mammal

3
1
2

1

1

Level 9

TOTAL
Odocoileus virginianus

1
1

1

Level 10

TOTAL
Unident. Mammal

2
2

2

Level 11

TOTAL
Ondatra zibethicus

4
4
1
3

4

Level 12

TOTAL
Young Sus
Ovis aries
Ondatra zibethicus
Medium Mammal
Small Mammal

58
14
1
28
4
11

2
1
5
1
3
12
1
3
32
2
3
61
1
1
1

1

2

4

1

7
1
4
2

Level 13

TOTAL
Young Sus
Small Mammal

4
1
3

1

1

Level 14

TOTAL
Bos taurus
Large Mammal

6
2
4

2

4

Unident.

Rib

Vertebra

Sacrum

Lumbar V.

Thoracic V.

Cervical V.

Limb

Phalanx

Metapodial

Tarsal

Ribula

Tibia

Patella

Femur

Pelvis

Carpal

Radius

Ulna

Humerus

Scapula

Mandible

Skull

Total

Provenience

Mammal

7K-F-88A: Rt. 113 Well Site
Flotation Sample
N.W. Quad
Level 4

Level 5

TOTAL
Small Mammal
Unident. Mammal

9
2
7

2

7

Level 7

TOTAL
Odocoileus virginianus
Small Mammal

8
1
7

1

6

1

10

Level 8

TOTAL
Medium Mammal

1
1

1

2

Level 9

TOTAL
Odocoileus virginianus

1
1

1

Level 11

TOTAL
Unident. Mammal

10
10

10

Level 12

TOTAL
Young Sus
Medium Mammal

18
14
4

1 1 3 2

7

4

Level 13

TOTAL
Small Mammal
Unident. Mammal

3
2
1

2

1

Level 15

TOTAL
Bos taurus
Sus scrofa

3
1
1

1

Mammals - 6

			Unident.
			Rib
			Vertebra
			Sacrum
			Lumbar V.
			Thoracic V.
			Cervical V.
			Limb
			Phalanx
			Metapodial
			Tarsal
			Fibula
			Tibia
			Patella
			Femur
			Pelvis
			Carpal
			Ulna
			Radius
			Humerus
			Scapula
			Mandible
			Skull
			Total
7K-F-88A: Rt. 113 Well Site Flotation Sample N.E. Quad Level 6	TOTAL <u>Sus scrofa</u>	1 1	1
Level 10	TOTAL Unident. Mammal	1 1	1
Level 14	TOTAL Medium Mammal	2 2	2
Level 16	TOTAL Unident. Mammal	1 1	1

			Unident.
			Rib
			Vertebra
			Sacrum
			Lumbar V.
			Thoracic V.
			Cervical V.
			Limb
			Phalanx
			Metapodial
			Tarsal
			Fibula
			Tibia
			Patella
			Femur
			Pelvis
			Carpal
			Ulna
			Radius
			Humerus
			Scapula
			Mandible
			Skull
			Total
Ferguson House 81/27-001: T. 1 Lvl. A	TOTAL Large Mammal	1 1	1
-012: T. 3 F. 2	TOTAL Unident. Mammal	2 2	2
-018: T. 5 Lvl. A	TOTAL <u>Ovis aries</u>	1 1	1
-102: T. 5 Lvl. A	TOTAL <u>Bos taurus</u>	1 1	1
-019: T. 5 Lvl. B	TOTAL <u>Bos taurus</u> Unident. Mammal	2 1 1	1
-020: T. 5 Lvl. C'	TOTAL Large Mammal	1 1	1
-024: T. 6 Lvl. A	TOTAL Unident. Mammal	1 1	1
-104: T. 6 Lvl. A	TOTAL Young Bos <u>Sus scrofa</u>	4 3 1	1 1
-105: T. 6 Lvl. B	TOTAL Medium Mammal	1 1	1
-026: T. 6 Lvl. B2	TOTAL <u>Bos taurus</u> Large Mammal Medium Mammal	3 1 1	1
-030: T. 7 Sod A	TOTAL <u>Ovis aries</u> Large Mammal	3 1 2	1 1

Mammals - 9

Mammals - 10	Provenience	Mammal	
	Ferguson House 81/27-089: T. 18 Inv. C	TOTAL <u>Bos taurus</u> Young Bos <u>Sus scrofa</u> Large Mammal Medium Mammal Unident. Mammal	
		1 1 2 3 1 1	
		9 1 1 2 3 1 1	
Total			

Mammals - 11

Unident.	
Rib	
Vertebra	
Sacrum	
Lumbar V.	
Thoracic V.	
Cervical V.	
Limb	
Phalanx	
Metapodial	
Tarsal	
Fibula	
Tibia	
Patella	
Femur	
Pelvis	
Carpal	
Ulna	
Radius	
Humerus	
Scapula	
Mandible	
Skull	
Total	

Mammal	Provenience	
Hawthorn Site 81/24-028:	ST. 50	TOTAL <u>Ovis aries</u>
-031:	ST. 53	TOTAL <u>Ovis aries</u>
-047:	ST. 69	TOTAL Large Mammal

Unident.

Rib

Vertebra

Sacrum

Lumbar V.

Thoracic V.

Cervical V.

Limb

Phalanx

Metapodial

Tarsal

Fibula

Tibia

Patella

Femur

Pelvis

Carpal

Ulna

Radius

Humerus

Scapula

Mandible

Skull

Total

Provenience

Mammal

Slack House
81/26-020: U. 5 Lvl. F

-055: ST. Row I

A.E. Hanby House
81/36-002

-003

Naaman's Rd. Site
81/37-001Misc.
81/38-003TOTAL
Ovis ariesTOTAL
Large MammalTOTAL
Bos taurusTOTAL
Ovis aries
Medium MammalTOTAL
Large MammalTOTAL
Large Mammal

1|1

1|1

1|1

2|1
1|1

1|1

1|1

1

1

1

1

1

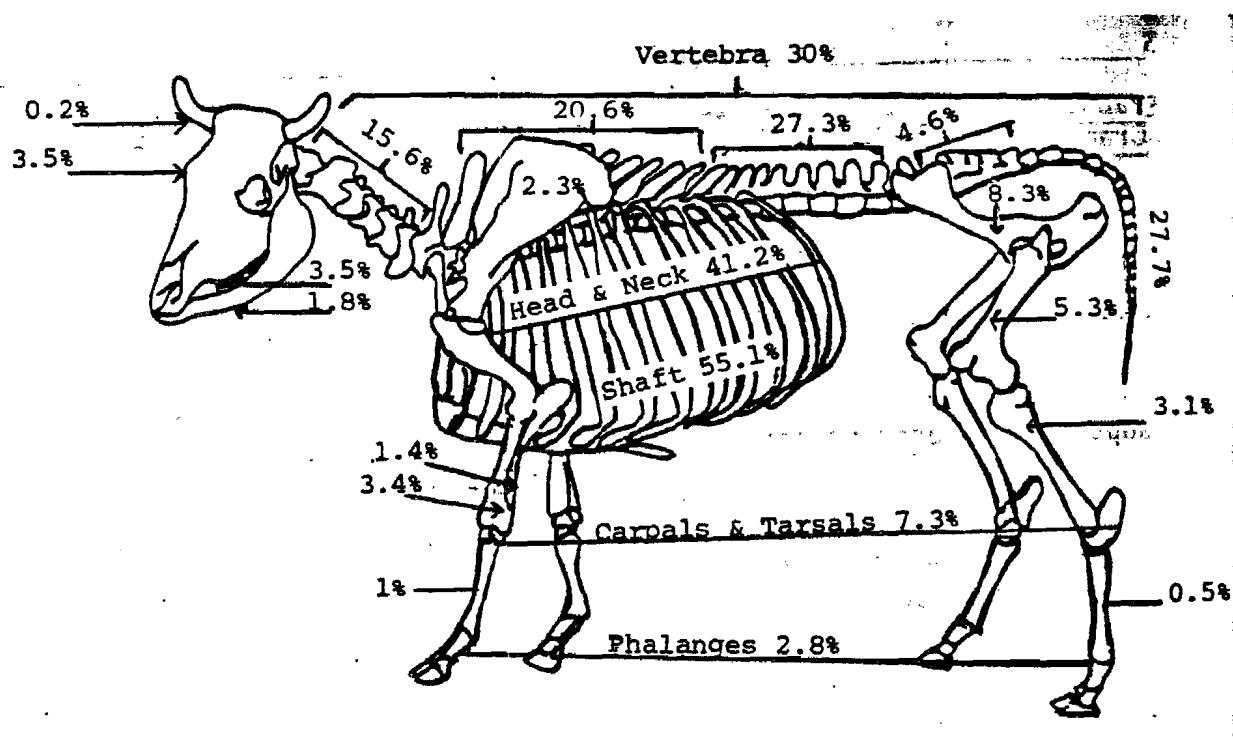
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Figure

CATTLE SKELETON (Bos taurus)

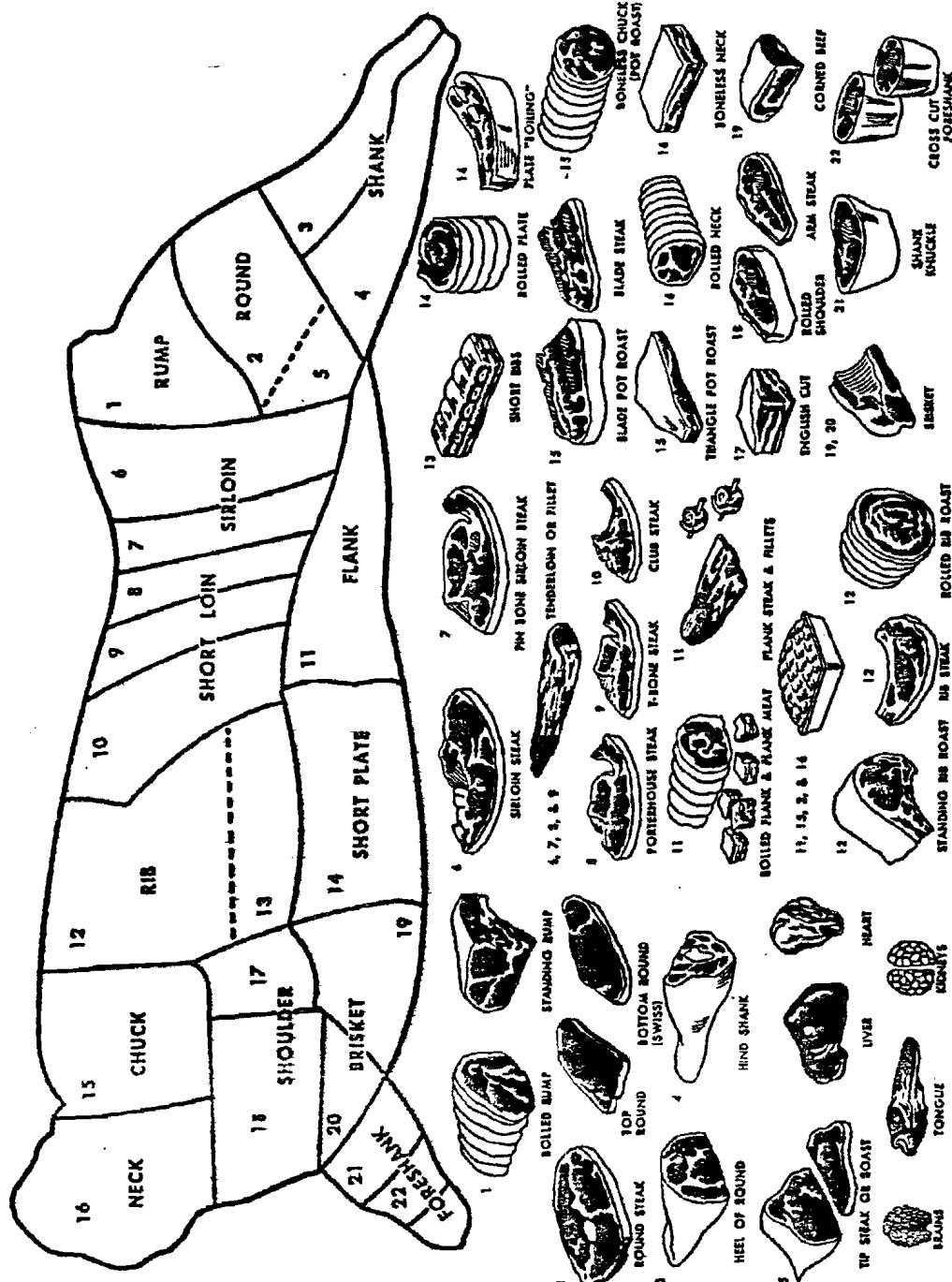
% of cuts at (Site)
 (Level)
 (Feature)
 (Prdy)

PRESERVATION
 OF DATA
 DO PEOPLE DO
 INDIVIDUAL
 RESEARCH NEEDS



DIVISIONS OF COMMERCIAL CUTS AND RETAIL CUTS OF BEEF

BEEF



RECIPES KEYED TO Cuts

Roast of Beef, Page 398: Rib 1
6-7; Short Loin 8-9-10.

Pot Roasts, Page 414: Shoulder
Chuck 15; Rump 1; or Brisket

Sauerbraten, and Boeuf à la M.
415; Shoulder 18.

Steaks: For details of beef cuts by this name, see Page 399. For Fillet Steaks, see Page 411; Broiled Steaks, Page 400; Broiled Steaks, Page 400, for can use Shoulder 18; Rib Steak 5; Ground Round 2.

Boeuf Fondu Bourguignonne, Pa.
Fillet 6-8; Sirloin 6-7.

Beef Stroganoff, Page 401: F.

Beef Kebabs, Page 402: Round
6-7; Fillets 6-9.

Beef Rolls, Roulades or Paupie
418: Round 2; Flank 11.

Borgoo, Page 418: Chuck 15;
Shoulder 18; Foreshank 21-2.

Sukiyaki, Page 402: Tenderloin
Sirloin Tip 6; Eye of Round

Beef Goulash, Page 417: Round
bone 21-22.

Flank Steak With Dressing,
Flank 11.

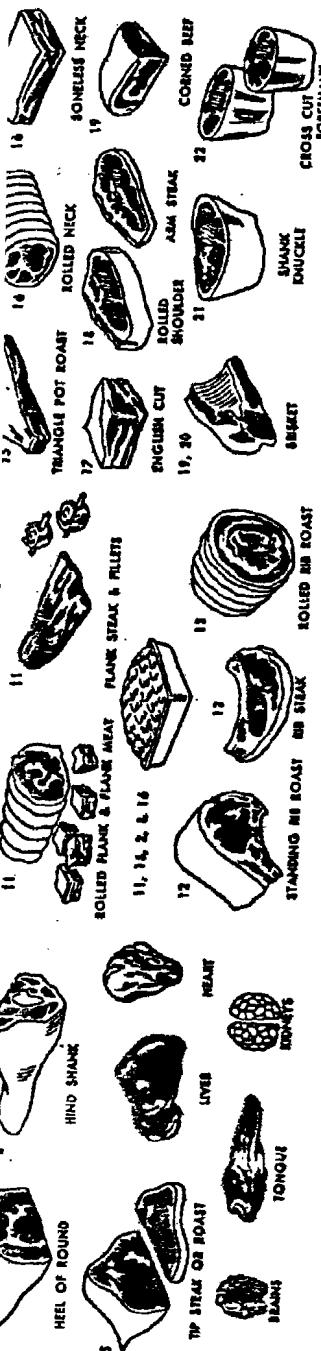
Oxtail Stew, Page 418: Tailbo-

Corned Beef, Page 412: Brisket

Ground Beef and Meat Loaves
and Hamburgers, Page 427:
Flank 11; Neck 16; Round

Heart, Page 447; Tongue, Pa.
Tripe, Page 448, are the
variety meats.

CUTS OF BEEF



RECIPES KEYED TO CHART

Roast of Beef, Page 398: Rib 12; Sirloin 6-7; Short Loin 8-9-10.

Pot Roasts, Page 414: Shoulder 18; Chuck 15; Rump 1; or Brisket 19.

Sauerbraten, and Boeuf à la Mode, Page 415; Shoulder 18.

Steaks: For details of beef cuts bearing this name, see Page 399. For Chart of Fillet Steaks, see Page 411; also see Broiled Steaks, Page 400 and Pan-Broiled Steaks, Page 400, for which you can use Shoulder 18; Rib Steak 12; Tip Steak 5; Ground Round 2.

Boeuf Fondu Bourguignonne, Page 401: Fillet 6-9; Sirloin 6-7.

Beef Stroganoff, Page 401: Fillets 6-9.

Beef Kebabs, Page 402: Round 2; Sirloin 6-7; Fillets 6-9.

Beef Rolls, Roulades or Paupiettes, Page 418: Round 2; Flank 11.

Burgoon, Page 418: Chuck 15; Neck 16; Shoulder 18; Foreshank 21-22.

Sukiyaki, Page 402: Tenderloin 6-9; Sirloin Tip 6; Eye of Round 2.

Beef Goulash, Page 417: Round 2; Shinbone 21-22.

Flank Steak With Dressing, Page 416: Flank 11.

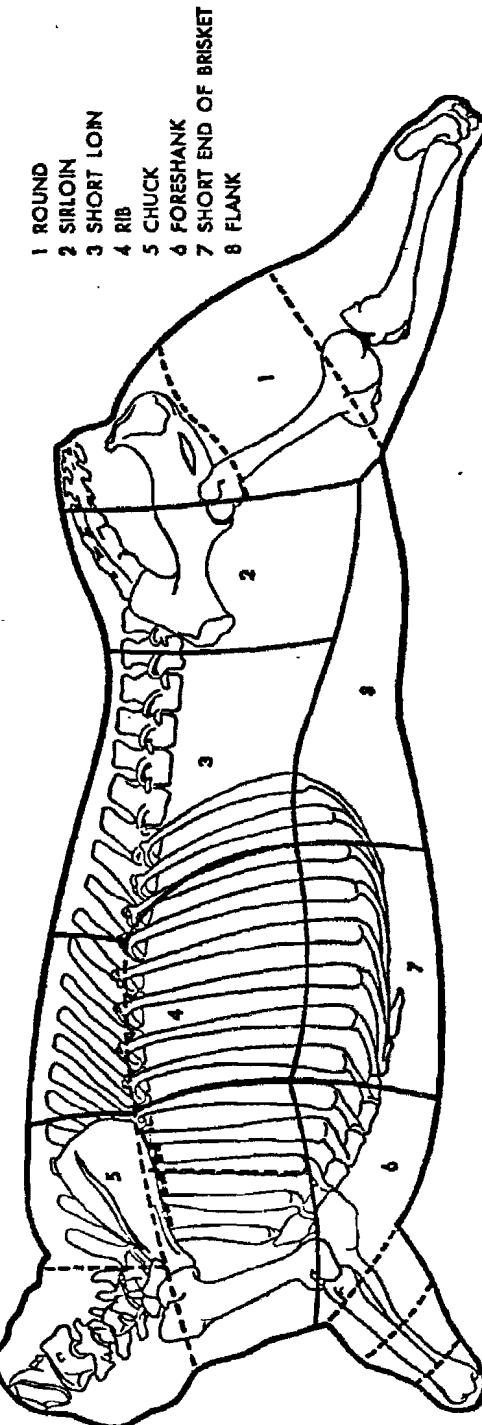
Oxtail Stew, Page 418: Tailbones.

Corned Beef, Page 412: Brisket 19.

Ground Beef and Meat Loaves, Page 431, and Hamburgers, Page 427: Chuck 15; Flank 11; Neck 16; Round 2.

Heart, Page 447, Tongue, Page 445, and Tripe, Page 448, are the favored beef variety meats.

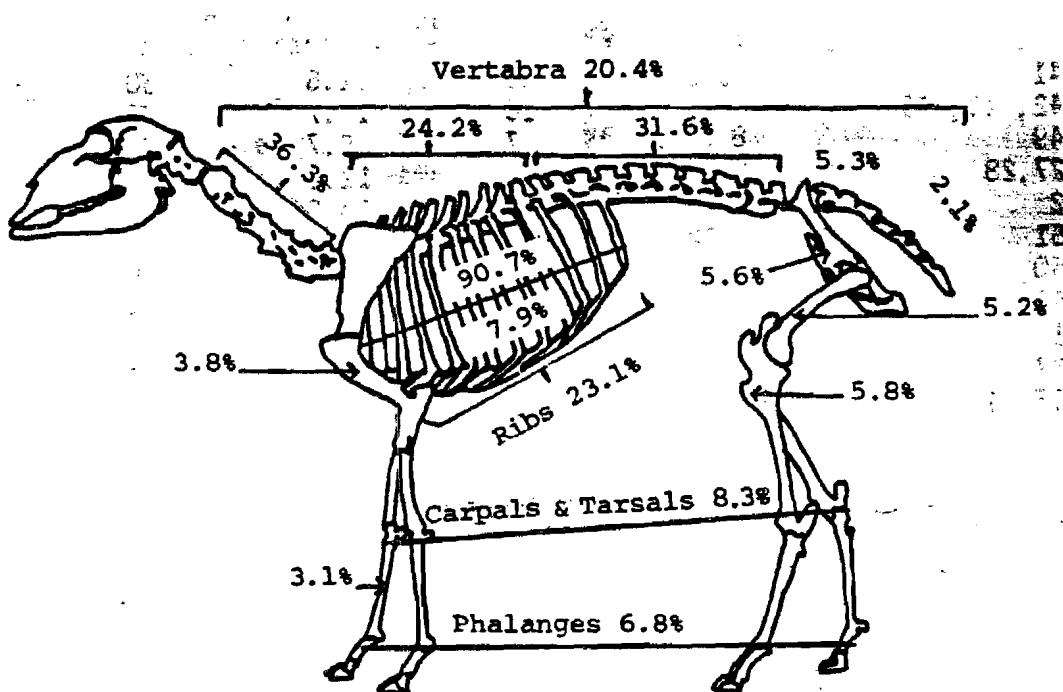
BONE STRUCTURE AND COMMERCIAL CUTS FROM A CARCASS OF BEEF



Figure

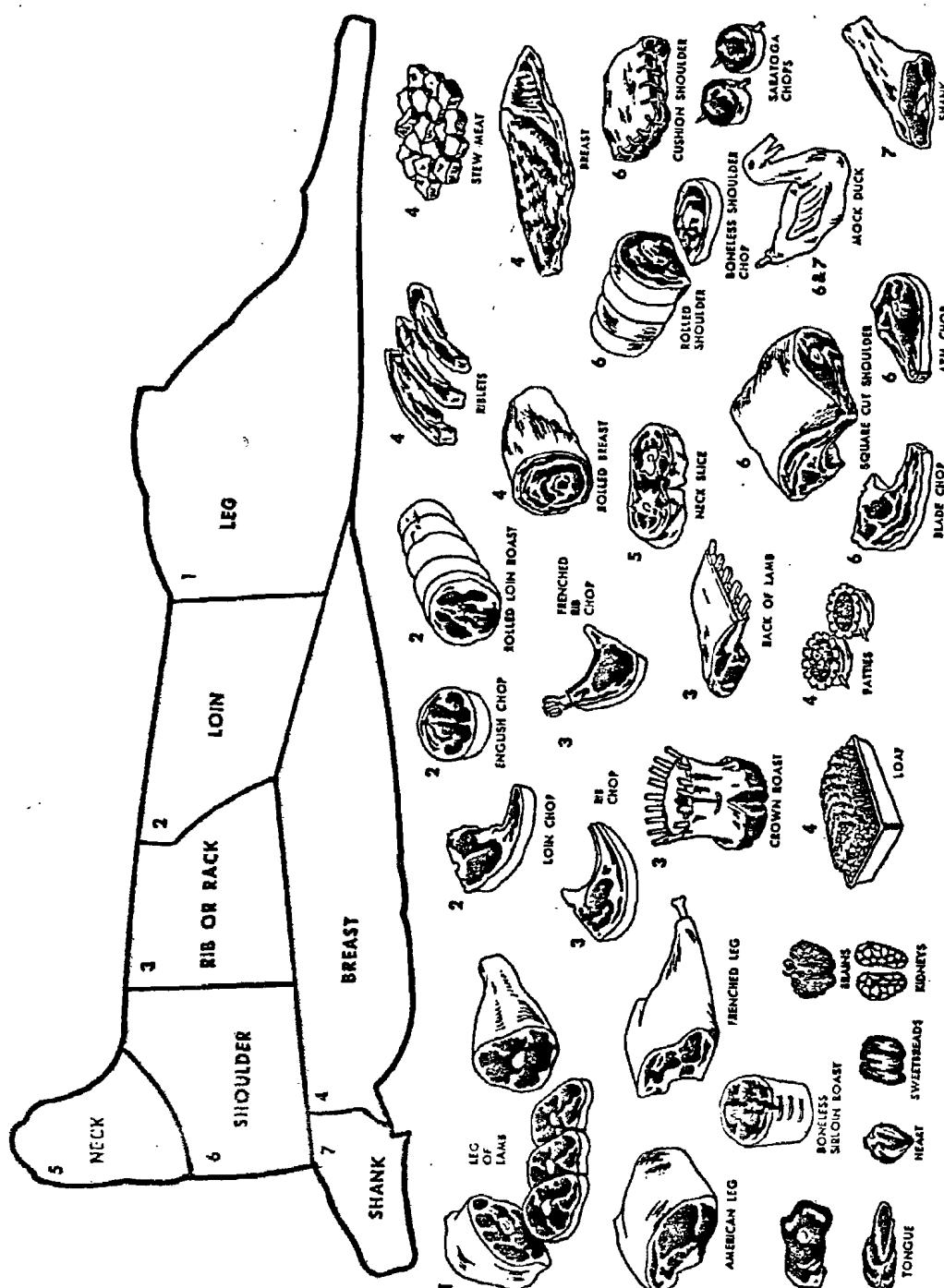
SHEEP SKELETON (Ovis aries)

% of cuts at site



DIVISIONS OF COMMERCIAL CUTS AND RETAIL CUTS OF LAMB

LAMB



RECIPES KEYED

Lamb or Mutton Roast,
Broiled Lamb Chops, P
Loin 2; Leg 1.

Broiled Lamb Kebabs, Pa
Shoulder 6.

Lamburgers, Page 428: 5

Since lamb is a relativ
almost any cut, especial
can be cooked by the
above. Also see pages 4
active areas where the
may be cooked accord
ing moist heat in
421-423.

Braised Stuffed Shoulder
Page 421: Shoulder 6.

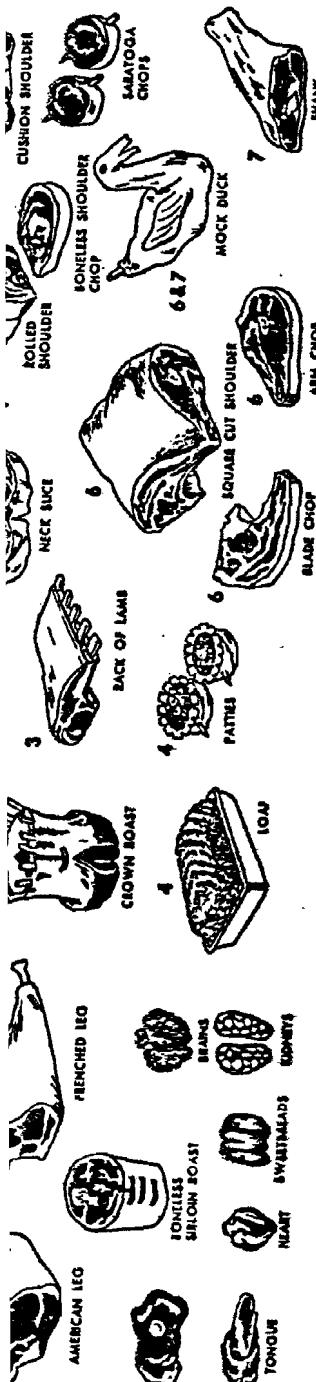
Braised Lamb Shanks
422: Shank 7.

Irish Stew, Page 423: Sh
Navarin Printanier, Page
Breast 4.

Try cooked lamb in Cur
423; Lamb and Eg
Page 430; Stuffed Eg

For Variety Meat Recip
Creole Sauce, Page
Kidney Pie, Page 418.

CUTS OF LAMB



RECIPES KEYED TO CHART

Lamb or Mutton Roast, Page 405: Rib 3.

Broiled Lamb Chops, Page 406: Rib 3; Loin 2; Leg 1.

Broiled Lamb Kebabs, Page 406: Shoulder 6.

Lamburgers, Page 428: Shoulder 6.

Since lamb is a relatively tender meat, almost any cut, especially of young lamb, can be cooked by the dry heat methods above. Also see pages 405-406. Cuts from active areas where the muscle is firmer may be cooked according to the following moist heat methods on pages 421-423.

Braised Stuffed Shoulder or Farce of Lamb, Page 421: Shoulder 6.

Braised Lamb Shanks or Trotters, Page 422: Shank 7.

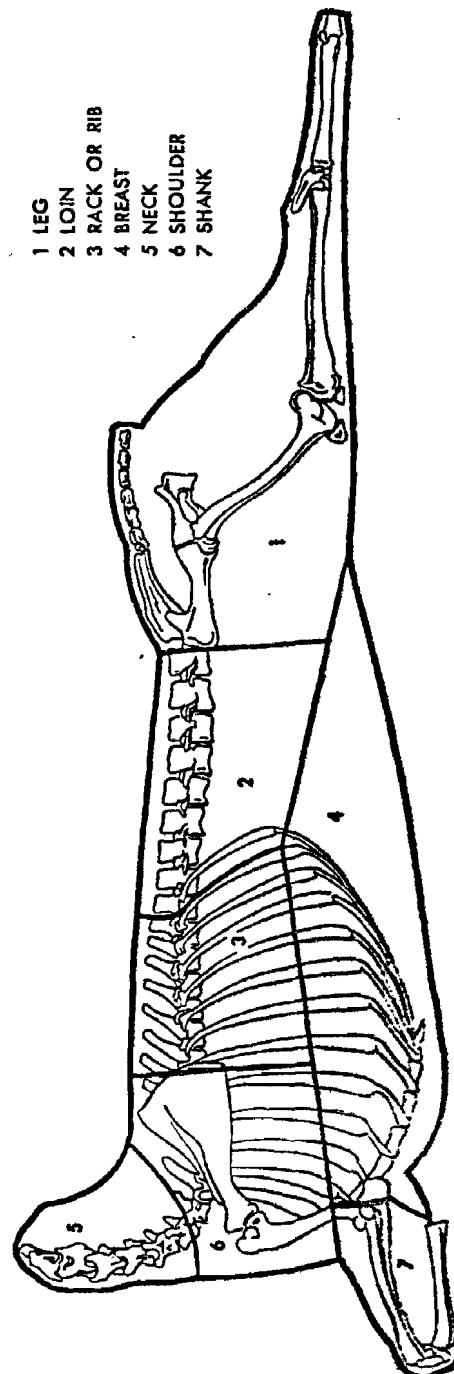
Irish Stew, Page 423: Shoulder 6; Breast 4.

Navarin Printanier, Page 422: Shoulder 6; Breast 4.

Try cooked lamb in Curry of Lamb, Page 423; Lamb and Eggplant Casserole, Page 430; Stuffed Eggplant, Page 278.

For Variety Meat Recipes, see Tongue in Creole Sauce, Page 446; Steak and Kidney Pie, Page 418.

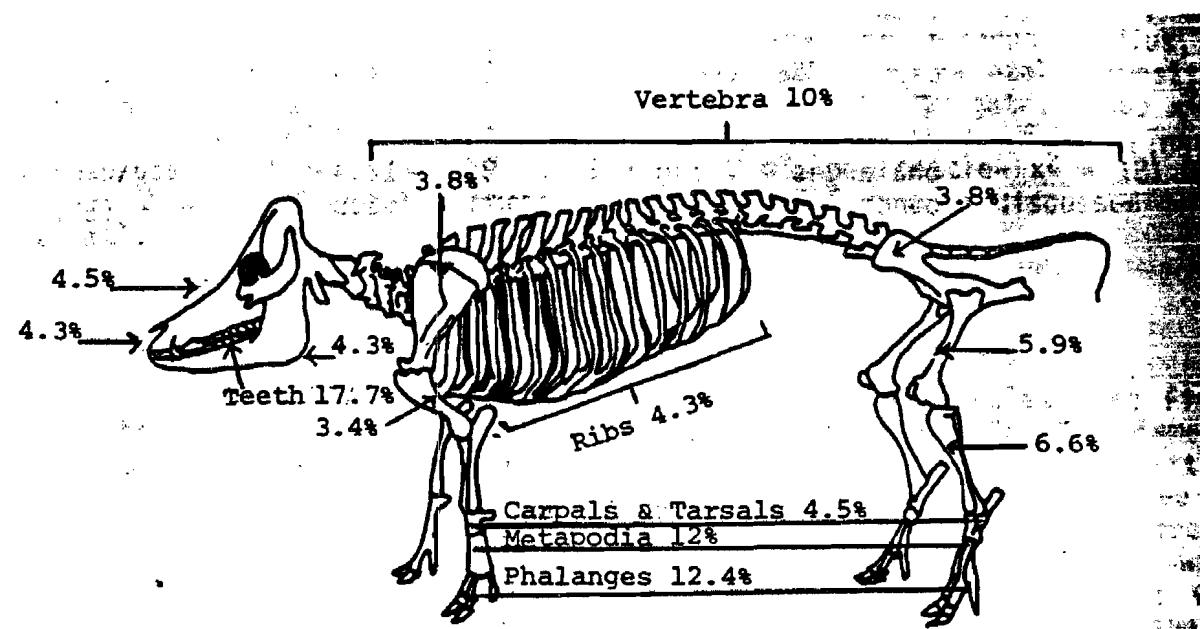
BONE STRUCTURE AND COMMERCIAL CUTS FROM A CARCASS OF LAMB



Figure

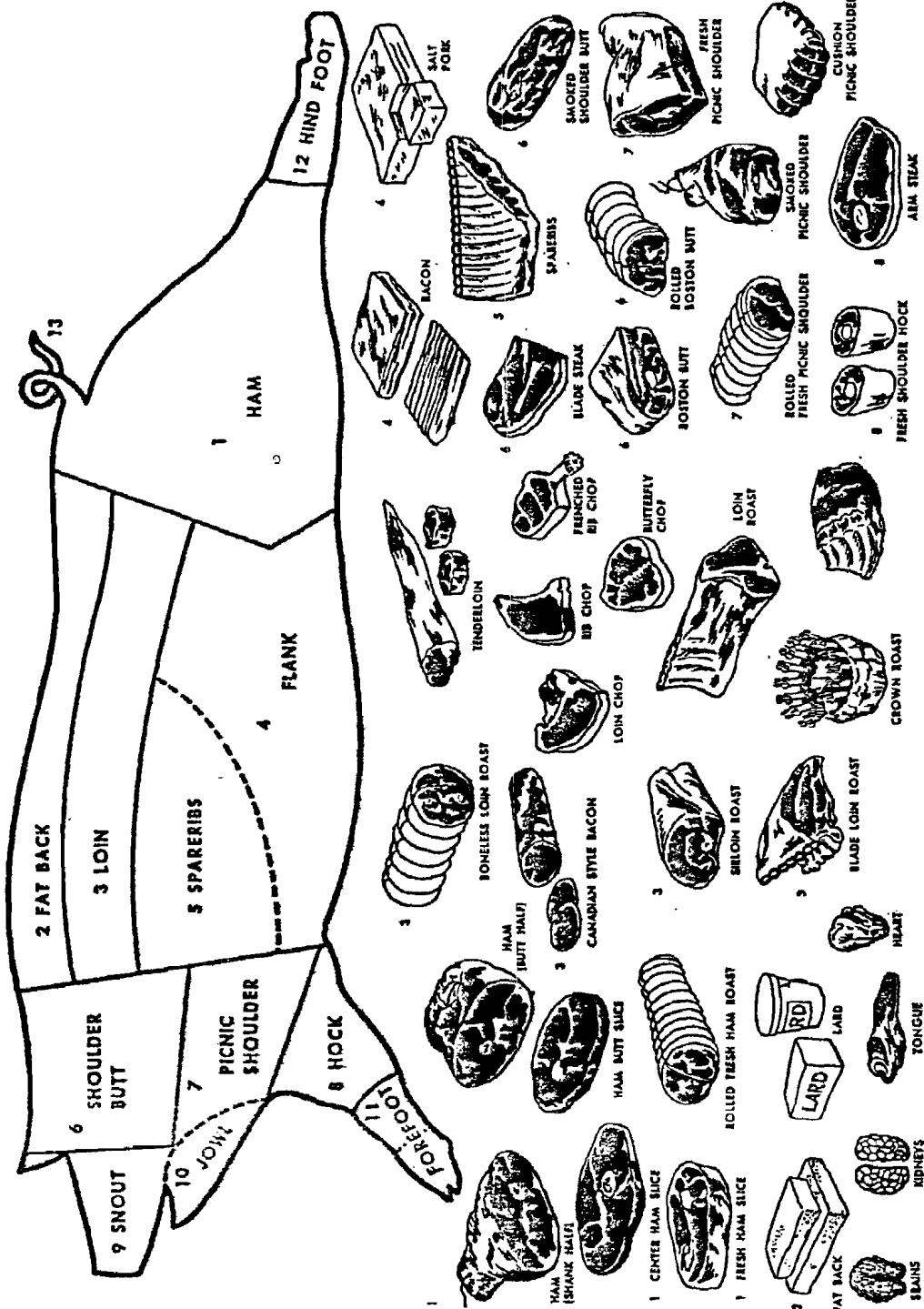
Pig SKELETON (Sus scrofa)

% of cuts at site



DIVISIONS OF COMMERCIAL CUTS AND RETAIL CUTS OF PORK

PORK



RECIPES KEYED TO

Roast of Pork, Page 407: L.

Roast of Pork Stuffed w/
Page 408: Shoulder Butt

Pork Tenderloin, Page 408:

Frenched Fruit Casserole,
3; with Mushrooms, Page

Rib Pork Chops Broiled, Pa-

Rib or Loin Chops, Page
Fruit, or Stuffed, Page 4Sweet and Sour Pork, Pa-
Ribs 5.Baked Spareribs, or Ribs W/
Page 425 or Barbecued
Ribs 5.

Stewed Pork Hocks, Page

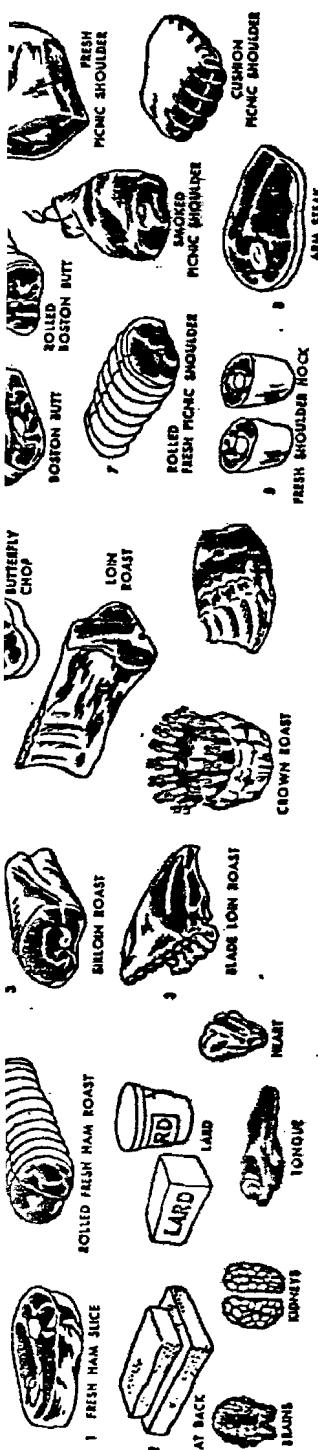
Hams, Pages 409-411, or E/
Page 387, or Ham Slice
with Fruit, Page 411: H.Billed Smoked Picnic Sh/
Picnic Shoulder 7.Broiled or Sauteed Bacon,
Flank 4.Broiled Sauted or Baked C/
Page 412: Loin 3.

Parblanched Salt Pork, Pa-

Pig's Feet, Page 450: Fo-

Pork Scrapple or Goetta, I/
Shoulder Butt 6.Pork Variety Meats are no/
exception of Suckling
Pate En Croute, Page 4/
Pig, see page 407.

11 CUTS OF PORK



RECIPES KEYED TO CHART

- Roast of Pork, Page 407: Loin 3.
 Roast of Pork Stuffed with Sauerkraut, Page 408: Shoulder Butt 6.
 Pork Tenderloin, Page 408: Loin 3.
 Frenched Fruit Casserole, Page 409; Loin 3; with Mushrooms, Page 424: Loin 3.
 Rib Pork Chops Broiled, Page 408: Loin 3.
 Rib or Loin Chops, Page 424 or with Fruit, or Stuffed, Page 425: Loin 3.
 Sweet and Sour Pork, Page 426: Boned Ribs 5.
 Baked Spareribs, or Ribs With Sauerkraut, Page 425 or Barbecued Ribs, Page 138: Ribs 5.
 Stewed Pork Hocks, Page 426: Hock 8.
 Hams, Pages 409-411, or Ham En Croute, Page 387, or Ham Slices Casseroled or with Fruit, Page 411: Ham 1.
 Rolled Smoked Picnic Shoulder, Page 411: Picnic Shoulder 7.
 Broiled or Sauted Bacon, Page 411: Flank 4.
 Broiled Sauted or Baked Canadian Bacon, Page 412: Loin 3.
 Parblanched Salt Pork, Page 510: Flank 4.
 Pigs' Feet, Page 450: Forefoot 11.
 Pork Scrapple or Goetta, Page 438: Shoulder Butt 6.
 Pork Variety Meats are not choice with the exception of Suckling Pig's Livers, see Pate En Croute, Page 433; for Suckling Pig, see page 407.

BONE STRUCTURE AND COMMERCIAL CUTS FROM A CARCASS OF PORK

